IN THE CLAIMS:

Please cancel Claim 7 without prejudice or disclaimer of subject matter and amend the claims as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A data transfer method between a first controller which controls an engine section for forming an image and a second controller which transmits image data to the first controller, wherein the engine section includes a nonvolatile memory,

wherein in an image forming operation mode of forming an image with the engine section, the method comprises:

notifying the second controller of a condition change of the engine section by the first controller, by changing a signal level of a report signal line from a first level to a second level;

transmitting a condition request instruction by the second controller to the first controller via a data signal line in response to the notifying of the condition change, while the signal level of the report signal line is at the second level; and

transmitting condition information by the first controller to the second controller via the data signal line in response to the condition request instruction, after the signal level of the report signal line is returned to the first level, and

wherein in a rewrite mode of rewriting the nonvolatile memory, the method comprises:

transmitting a rewrite instruction by the second controller to the first controller via the data signal line, while the signal level of the report signal line is at the first level;

transmitting rewrite data by the second controller to the first controller via the data signal line in response to the rewrite instruction, while the signal level of the report signal line is at the first level,

notifying the second controller that the first controller is not ready for reception of the rewrite instruction or the rewrite data by changing the signal level of the report signal line from the first level to the second level, and maintaining the report signal line at the second level while the data of the nonvolatile memory is rewritten by the first controller by the rewrite data transmitted from the second controller; and

~~rewriting the nonvolatile memory of the engine section by the first controller by the rewrite data transmitted from the second controller,~~

notifying the second controller that the first controller is ready for reception of the rewrite data by changing the signal level of the report signal line from the second level to the first level, after the data of the nonvolatile memory has been rewritten by the first controller by the rewrite data transmitted from the second controller,

wherein, in the rewrite mode, the data of the nonvolatile memory is repeatedly rewritten by the first controller by the rewrite data transmitted from the second controller by alternately changing the signal level of the report signal line to the first level or to the second level, and

wherein there is a determination that an error has occurred if the signal level of the report signal line is not changed from the second level to the first level within a time

period including time for communication between the first and second controllers and time for rewriting the data of the nonvolatile memory, and if it is determined that the error has occurred, the rewrite data is transmitted to the first controller by the second controller again ~~when the rewrite data is transmitted from the second controller to the first controller, data communication from the second controller to the first controller is synchronized by repeatedly notifying the second controller of a first condition which indicates that the first controller cannot receive data following the current data since the first controller is rewriting data, and a second condition which indicates that the first controller can receive the data following the current data~~.

2. (Cancelled)

3. (Previously Presented) The method according to claim 1, further comprising the steps of:

in the rewrite mode, transmitting the condition of the first controller by the first controller to the second controller via the data signal line, after the signal level is changed from the first level to the second level.

4. (Previously Presented) The method according to claim 3, wherein a condition of the first controller is one of a data transfer error, an erase or rewrite operation result of the nonvolatile memory, or an end of the rewrite operation of the nonvolatile memory.

5. to 7. (Cancelled)

8. (Previously Presented) The method according to claim 1, wherein the rewrite data is a control program code data.

9. (Cancelled)

10. (Original) The method according to claim 1, wherein the nonvolatile memory is a flash memory.

11. (Currently Amended) An image forming apparatus including a first controller which controls an engine section for forming an image and a second controller which transmits image data to the first controller, wherein the engine section includes a nonvolatile memory, and wherein the image forming apparatus is configured to operate in an image forming operation mode of forming an image with the engine section, or a rewrite mode of rewriting data of the nonvolatile memory, the apparatus comprising:

signal lines for communication between the first controller and the second controller, wherein the signal lines include a report signal line and a data signal line, wherein a signal level of the report signal line is changed by the first controller, and wherein the data signal line is for transmitting data from the second controller to the first controller;

means for, in the image forming operation mode, notifying the second controller of a condition change of the engine section by the first controller, by changing a signal level of the report signal line from a first level to a second level;

means for, in the image forming operation mode, transmitting a condition request instruction by the second controller to the first controller via a data signal line, while the signal level of the report signal line is at the second level;

means for, in the image forming operation mode, transmitting condition information by the first controller to the second controller via the data signal line in response to the condition request instruction, after the signal level of the report signal line is returned to the first level;

means for, in the rewrite mode, transmitting a rewrite instruction by the second controller to the first controller via the data signal line while the signal level of the report signal line is at the first level;

means for, in the rewrite mode, transmitting rewrite data by the second controller to the first controller via the data signal line in response to the rewrite instruction, while the signal level of the report signal line is at the first level; and

means for, in rewrite mode, notifying the second controller that the first controller is not ready for reception of the rewrite instruction or the rewrite data by changing the signal level of the report signal line from the first level to the second level, and maintaining the report signal line at the second level while the data of the nonvolatile memory is rewritten by the first controller by the rewrite data transmitted from the second controller; and

~~means for, in the rewrite mode, rewriting the nonvolatile memory of the engine section by the first controller by the rewrite data transmitted from the second controller,~~

means for, in the rewrite mode, notifying the second controller that the first controller is ready for reception of the rewrite data by changing the signal level of the report signal line from the second level to the first level, after the data of the nonvolatile memory has been rewritten by the first controller by the rewrite data transmitted from the second controller,

wherein, in the rewrite mode, ~~when the rewrite data is transmitted from the second controller to the first controller, data communication from the second controller to the first controller is synchronized by repeatedly notifying the second controller of a first condition which indicates that the first controller cannot receive data following the current data since the first controller is rewriting data, and a second condition which indicates that the first controller can receive the data following the current data~~ the data of the nonvolatile memory is repeatedly rewritten by the first controller by the rewrite data transmitted from the second controller by alternately changing the signal level of the report signal line to the first level or to the second level, and

wherein it is determined that an error has occurred if the signal level of the report signal line is not changed from the second level to the first level within a time period including time for communication between the first and second controllers and time for rewriting the data of the nonvolatile memory, and if it is determined that the error has occurred, the rewrite data is transmitted to the first controller by the second controller again.

12. (Cancelled)